

REMARKS

The present application was filed on June 6, 2002 with claims 1-27. Claims 1-27 are pending.

In the outstanding Office Action, the Examiner (1) rejected claims 1-10, 12-14, 16-18, 20-22, and 24-26 under 35 U.S.C. §103(a) as being unpatentable over Moslemie et al., WO98/57509 (hereinafter, Moslemie) in view of Lee et al., U.S. Patent No. 6,621,809 (hereinafter, Lee); and (2) rejected claims 11, 15, 19, 23, and 27 under 35 U.S.C. §103(a) as being unpatentable over Moslemie and Lee in view of Jarvinen et al., U.S. Patent No. 5,960,389.

Regarding the rejections in item (1) above, Applicant respectfully traverses these rejections. For independent claim 1, claim 1 recites in part the subject matter of “signalling, between a mobile station to a network, that one of the mobile station or the network is temporarily ceasing transmission of frames”, “at the network and in response to the signalling that one of the mobile station or the network is temporarily ceasing transmission of frames, determining if a current traffic channel that is assigned to the mobile station can be retained by the mobile station, or whether the current traffic channel must be released by the mobile station”, and “if it is determined that the current traffic channel must be released by the mobile station, signalling from the network to the mobile station to release the channel”. Note that this subject matter is related to a *single* mobile station.

The Examiner asserts that Moslemie discloses the subject matter of “at the network and in response to the signalling that one of the mobile station or the network is temporarily ceasing transmission of frames, determining if a current traffic channel that is assigned to the mobile station can be retained by the mobile station”. Applicant respectfully disagrees. Specifically, Moslemie does not disclose that “determining if a current traffic channel that is assigned to the mobile station can be retained by the mobile station” is performed in response to signalling that one of the mobile station or the network is temporarily ceasing transmission of frames.

What happens in Moslemie is that when a DTX (discontinuous transmission) state occurs on the downlink for a mobile station with the circuit-switched call, the channel being used for the circuit-switched call is allocated for packet-mode transmission on the downlink to another mobile station. See Moslemie at page 6, lines 13-17: "When the circuit-switched call switches to a DTX state (transmission of information is interrupted), data packets of a packet-mode call (calls) are transmitted on the traffic channel allocated for the circuit-switched call, until the discontinuous transmission state ends." Thus, in the main embodiment in Moslemie, there are two mobile stations: a first mobile station (a "circuit-switched mobile station" herein) that receives circuit-switched data on a downlink traffic channel; and a second mobile station (a "packet-mode mobile station" herein) that receives packet-mode data on the same downlink traffic channel. See Moslemie at page 6, lines 22-24 (emphasis added): "For the duration of the DTX states, a traffic channel is allocated for packet-mode transmission typically to mobile stations *other than* the one to which the traffic channel is allocated for circuit-switched transmission." It is noted that in response to a DTX state on the downlink traffic channel, the data packets of the packet-mode transmission are transmitted on the downlink traffic channel allocated for the circuit-switched call. See sections of Moslemie quoted above.

Further, both the circuit-switched and packet-mode mobile stations in Moslemie remain operational with respect to the *single* allocated downlink traffic channel:

The mobile station (mobile stations) for the packet-mode data transmission of which a traffic channel is allocated is controlled to receive on the channel allocated. It receives the data packets addressed to it quite normally, but rejects any information received concerning the circuit-switched call. Correspondingly, the mobile station with the ongoing circuit-switched call receives quite normally in the DTX state but rejects all packet-mode information as being defective. In other words, *both (each) mobile stations receive on a traffic channel as if the channel were permanently allocated to the [respective] mobile station.*

Moslemie at page 6, lines 27-35 (emphasis added). In other words, in Moslemie, because the downlink traffic channel in Moslemie for circuit-switched mobile station is *retained* by the circuit-switched mobile station in response to the downlink traffic channel entering the DTX

state, there is therefore no determination, performed in response to signalling that one of the mobile station or the network is temporarily ceasing transmission of frames, if a current traffic channel that is assigned to the mobile station can be retained by the mobile station, as generally recited in independent claim 1.

In Moslemie, when the DTX state is “over” on the downlink traffic channel, the downlink traffic channel is released by the PCU/CCU, which communicates the release to the packet-mode mobile station. See Moslemie at page 15, lines 16-24. During this process, the PCU/CCU may also reassign another circuit-switched (i.e., GSM) downlink traffic channel to the packet-mode mobile station. See Moslemie at page 15, lines 24-27 (emphasis added): “The PCU may also re- allocate the current downlink PDTCH by sending a Packet Resources Reassignment message, which is acknowledged by the MS. For example, *reassignment to another GSM traffic channel in a DTX state is possible.*” However, this reassignment in Moslemie of a downlink traffic channel for the packet-mode mobile station is performed in response to the network’s *beginning to transmit* frames (i.e., the DTX state is over on the downlink transmission channel) and *not* in response to ceasing transmission of frames (e.g., the DTX state). Consequently, this embodiment of Moslemie does not disclose that “determining if a current traffic channel that is assigned to the mobile station can be retained by the mobile station” is performed in response to signalling that one of the mobile station or the network is temporarily ceasing transmission of frames, as generally recited in independent claim 1.

In Moslemie, the allocation to the packet-mode mobile station of the downlink traffic channel may last more than one DTX state: “The GPRS allocation may also last for a longer period of time, i.e. for several DTX states.” Moslemie at page 15, lines 29-30. In this embodiment of Moslemie, as the traffic channel assigned to the packet-mode mobile station is retained by the packet-mode mobile station, there is no determination, performed in response to signalling that one of the mobile station or the network is temporarily ceasing transmission of frames, if a current traffic channel that is assigned to the mobile station can be retained by the mobile station, as generally recited in independent claim 1.

Moslemie also describes an embodiment where the circuit-switched mobile station and the packet-mode mobile station are the same mobile station: “A traffic channel may also be allocated to *one and the same* mobile station for both circuit-switched and packet-mode traffic, but the mobile station then has to be modified particularly for this purpose.” Moslemie at page 7, lines 4-7 (emphasis added). In this embodiment of Moslemie, one mobile station continuously has the same downlink traffic channel assignment, so there is no determination, performed in response to signalling that one of the mobile station or the network is temporarily ceasing transmission of frames, if a current traffic channel that is assigned to the mobile station can be retained by the mobile station, as generally recited in independent claim 1.

Therefore, Moslemie does not disclose at least the subject matter in independent claim 1 of “at the network and in response to the signalling that one of the mobile station or the network is temporarily ceasing transmission of frames, determining if a current traffic channel that is assigned to the mobile station can be retained by the mobile station”. Applicant also submits that Lee does not disclose “at the network and in response to the signalling that one of the mobile station or the network is temporarily ceasing transmission of frames, determining if a current traffic channel that is assigned to the mobile station can be retained by the mobile station”. Therefore, the combination of Moslemie and Lee does not disclose this subject matter and independent claim 1 is patentable over the combination of Moslemie and Lee.

Moreover, Applicant questions the way the Examiner is combining Moslemie and Lee. Specifically, independent claim 1 recites in part “at the network and in response to the signalling that one of the mobile station or the network is temporarily ceasing transmission of frames,” and determining (a) “if a current traffic channel that is assigned to the mobile station can be retained by the mobile station,” or (b) “whether the current traffic channel must be released by the mobile station”, where “(a)” and “(b)” are added for ease of reference. The Examiner asserts that clause portion (a) is disclosed by Moslemie but that clause portion (b) is not disclosed by Moslemie. The Examiner then asserts that clause

portion (b) is instead disclosed by Lee. Applicant respectfully submits that this construction by the Examiner appears to be hindsight analysis, because the clause “determining if a current traffic channel that is assigned to the mobile station can be retained by the mobile station, or whether the current traffic channel must be released by the mobile station” is one single clause that the Examiner has broken into the clause portions (a) and (b) solely to combine two references. Thus, the combination of Moslemie and Lee appears to be improper.

For at least these reasons, independent claim 1 is patentable over the cited references of Moslemie and Lee. Because independent claim 1 is patentable over the combination of Moslemie and Lee, dependent claims 2-10 are also patentable over the combination of Moslemie and Lee for at least the reasons given above with respect to independent claim 1. Applicant respectfully requests that the §103(a) rejection to claims 1-10 be withdrawn.

Regarding independent claim 12, independent claim 12 comprises features of “detecting, in a mobile station, a cessation of user speech”, “in response, signalling from the mobile station to a network that the mobile station is entering a Discontinuous Transmission state”, “at the network and in response to the signalling that the mobile station is entering the Discontinuous Transmission state, based at least on a consideration of a current network requirement for uplink voice traffic channels, determining if a current uplink voice traffic channel that is assigned to the mobile station can be retained by the mobile station, or whether the current uplink voice traffic channel must be released by the mobile station”, and “only if it is determined that the current uplink voice traffic channel must be released by the mobile station, sending a channel release message from the network to the mobile station.”

First, it should be noted that portions of independent claim 12 are directed to an uplink voice traffic channel. Moslemie specifically states that “[t]he method of the invention allows much more effective use of radio network capacity in the downlink direction.” See page 7, lines 14-15 of Moslemie. There is no disclosure or implication in Moslemie that Moslemie’s invention can be used in the uplink direction. Even if Moslemie’s invention can be used in the uplink direction, the arguments above for independent claim 1

are valid with respect to independent claim 12, as converting Moslemie's invention to be used in the uplink direction still would not disclose at least "at the network and in response to the signalling that the mobile station is entering the Discontinuous Transmission state, based at least on a consideration of a current network requirement for uplink voice traffic channels, determining if a current uplink voice traffic channel that is assigned to the mobile station can be retained by the mobile station, or whether the current uplink voice traffic channel must be released by the mobile station" as recited in independent claim 12. Lee does not disclose this recited feature from independent claim 12.

Therefore, neither Moslemie nor Lee discloses "at the network and in response to the signalling that the mobile station is entering the Discontinuous Transmission state, based at least on a consideration of a current network requirement for uplink voice traffic channels, determining if a current uplink voice traffic channel that is assigned to the mobile station can be retained by the mobile station, or whether the current uplink voice traffic channel must be released by the mobile station". Because neither Moslemie nor Lee discloses this recited feature, the combination of Moslemie and Lee do not disclose the recited feature.

Second, claim 12 contains the feature of "at the network and in response to the signalling that the mobile station is entering the Discontinuous Transmission state, based at least on a consideration of a current network requirement for uplink voice traffic channels, determining if a current uplink voice traffic channel that is assigned to the mobile station can be retained by the mobile station, or whether the current uplink voice traffic channel must be released by the mobile station". There is no disclosure or implication in Moslemie or Lee or the combination thereof that *based at least on a consideration of a current network requirement for uplink voice traffic channels* a determination is made as to whether to retain or release an uplink voice traffic channel assigned to a mobile station. For instance, Moslemie specifically states that the radio unit 30 simply starts to send GPRS information (to a mobile station supporting GPRS -- not the mobile station supporting GSM) when the DTX_DETECTED line is set. See page 14, lines 7-17 of Moslemie. Lee appears unrelated to consideration of a current network requirement for uplink voice traffic channels Neither

Moslemie nor Lee (or their combination) appears to considers a current network requirement for uplink traffic channels.

Therefore, Applicant respectfully submits that independent claim 12 is patentable over the combination of Moslemie and Lee. Because independent claim 12 is patentable, dependent claims 13 and 14 are also patentable for at least the reasons given for independent claim 12, and Applicant requests the §103(a) rejection to claims 12-14 be withdrawn.

With regard to independent claim 16, this claim comprises features of “detecting, in a component of the network, a cessation of speech”, “in response, signalling from the mobile station to a network that the mobile station is entering a Discontinuous Transmission state”, “at the network and in response to the signalling that the mobile station is entering the Discontinuous Transmission state, based at least on a consideration of a current network requirement for downlink voice traffic channels, determining if a current downlink voice traffic channel that is assigned to the mobile station can be retained by the mobile station, or whether the current downlink voice traffic channel must be released by the mobile station” and “only if it is determined that the current downlink voice traffic channel must be released by the mobile station, sending a channel release message from the network to the mobile station”.

The combination of Moslemie and Lee does not disclose or imply all features of claim 16. In particular as described above in reference to independent claim 1, neither Moslemie nor Lee discloses “at the network and in response to the signalling that the mobile station is entering the Discontinuous Transmission state, based at least on a consideration of a current network requirement for downlink voice traffic channels, determining if a current downlink voice traffic channel that is assigned to the mobile station can be retained by the mobile station, or whether the current downlink voice traffic channel must be released by the mobile station”. Therefore the combination of Moslemie and Lee does not disclose this recited feature from independent claim 16. Furthermore, as described above, there is no disclosure or implication in Moslemie or Lee or the combination thereof that *based at least*

on a consideration of a current network requirement for downlink voice traffic channels a determination is made as to whether to retain or release a downlink voice traffic channel assigned to a mobile station.

Therefore, Applicant respectfully submits that independent claim 16 is patentable over the combination of Moslemie and Lee. Because independent claim 16 is patentable, dependent claims 17 and 18 are also patentable for at least the reasons given for independent claim 16, and Applicant requests the §103(a) rejection to claims 16-18 be withdrawn.

With regard to independent claim 20, this claim has features similar to the features in independent claim 12. Therefore, the arguments with respect to independent claim 12 are applicable to independent claim 20. In particular, certain features of independent claim 20 specifically concern the uplink direction for voice traffic. By contrast, there is no disclosure or implication in Moslemie or Lee or their combination that these systems can be used regarding voice traffic in the uplink direction. Further, claim 20 recites “a channel allocation unit in said wireless network that is responsive to a receipt of said message [e.g., ‘to a wireless network for indicating that the mobile station is entering a Discontinuous Transmission state’], and to a current requirement for uplink voice traffic channels, for determining if a current uplink voice traffic channel that is assigned to the mobile station can be retained by the mobile station, or whether the current uplink voice traffic channel must be released by the mobile station”, and as shown above Moslemie or Lee or their combination does not disclose this recited feature. Additionally, there is no disclosure in Moslemie of the features of the channel allocation unit and the wireless network transmitter of independent claim 20. The arguments given above with respect to independent claim 12 are equally valid with respect to the channel allocation unit and the wireless network transmitter of independent claim 20.

Applicant respectfully submits that independent claim 20 is patentable over the combination of Moslemie and Lee. Because independent claim 20 is patentable, its

dependent claims 21 and 22 are also patentable for at least the reasons given for independent claim 20. Applicant respectfully requests the §103(a) rejection to claims 20-22 be withdrawn.

With regard to independent claim 24, this claim has features similar to the features in independent claim 16. Therefore, the arguments with respect to independent claim 16 are applicable to independent claim 24. In particular, Moslemie or Lee or their combination does not disclose “a channel allocation unit in said wireless network that is responsive to a generation of said message [e.g., ‘to a mobile station for indicating that the wireless network is entering a Discontinuous Transmission state’] ... for determining if a current downlink voice traffic channel that is assigned to the mobile station can be retained by the mobile station, or whether the current downlink voice traffic channel must be released by the mobile station”. Therefore the combination of Moslemie and Lee do not disclose “determining if a current downlink voice traffic channel that is assigned to the mobile station can be retained by the mobile station, or whether the current downlink voice traffic channel must be released by the mobile station” as recited in independent claim 24. Furthermore, there is no disclosure or implication in Moslemie or Lee or the combination thereof that ***based at least on a consideration of a current network requirement for downlink voice traffic channels*** a determination is made as to whether to retain or release an uplink voice traffic channel assigned to a mobile station.

Applicant respectfully submits that independent claim 24 is patentable over the combination of Moslemie and Lee. Because independent claim 24 is patentable, its dependent claims 25 and 26 are also patentable for at least the reasons given with respect to independent claim 24. Applicant respectfully requests the §103(a) rejection to claims 24-26 be withdrawn.

Regarding rejections in (2) above, having §103(a) rejections of dependent claims 11, 15, 19, 23, and 27, these claims depend from independent claims 1, 12, 16, 20, and 24, respectively. Therefore, Applicant respectfully submits that dependent claims 11, 15, 19, 23, and 27 are patentable for at least the arguments given above with respect to their

S.N. 09/587,993
Art Unit: 2666

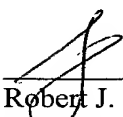
independent claims and respectfully request the §103(a) rejection of claims 11, 15, 19, 23, and 27 be withdrawn.

Based on the foregoing arguments, it should be clear that claims 1-27 are thus allowable over the prior art cited by the Examiner, and the Examiner is respectfully requested to reconsider and remove the rejections.



S.N. 09/587,993
Art Unit: 2666

Respectfully submitted:


Robert J. Mauri
Reg. No.: 41,180

11/31/06
Date

Customer No.: 29683

HARRINGTON & SMITH, LLP
4 Research Drive
Shelton, CT 06484-6212

Telephone: (203)925-9400
Facsimile: (203)944-0245
email: rmauri@hspatent.com

CERTIFICATE OF MAILING

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Commissioner for Patents, P.O. BOX 1450, Alexandria, VA 22313-1450.

1-31-06
Date

Ann Okrentowich
Name of Person Making Deposit